TRANSMITTAL LETTER



To: Erik Gurshaw EGLE Warren District Office 27700 Donald Court Warren, Michigan 48092-2793 gurshawe@michigan.gov	From: Megan Meckley	Arcadis U.S., Inc. 28550 Cabot Drive Suite 500 Novi Michigan 48377 Tel 248 994 2240
Copies: Todd Walton, Ford EQO Colleen Liddell, Ford EQO Chuck Pinter, Ford EQO Subject: Livonia Transmission Plant EGLE Site ID No. 82002970 Quarterly Residential Mitigation Update Letter	Date: January 31, 2025 Arcadis Project No.: 30251157	

We are sending you copies:

\boxtimes	Attached		Under Separate Cover Via the Following Items:					
	Shop Dra Prints Other:	awings	Plans Samples		Decifications Change Order Dpy of Letter Reports			
	Copies Delivery Date Drawing Rev. Description		Description	Action*				
	1 04/30/202				Quarterly Residential Mitigation Update Letter 1Q2025			
Ac	tion*							
	A Ap	proved			CR Correct and Resubmit Resubmit	Copies		
	AN Ap	proved As Noted			F File Return Cop	pies		
	AS As	Requested		FA For Approval Review and Com				
\boxtimes	Other: As Requested per the Consent Decree							
Mailing Method								
			ss 🗌 Courier/	Hand Deliv	very 🛛 FedEx Priority Overnight 🗌 FedEx 2-Day Del	livery		
	Certified/	Registered Mail	United Pa	arcel Servi	rice (UPS) 🔲 FedEx Standard Overnight 🛛 🗌 FedEx Economy			
\boxtimes	Other: E	lectronic Subr	nittal					



SUBJECT Ford Livonia Transmission Plant-Quarterly Residential Mitigation Update Letter 36200 Plymouth Road, Livonia, Wayne County, Michigan

TO Erik Gurshaw EGLE Warren District Office 27700 Donald Court Warren, Michigan 48092-2793 gurshawe@michigan.gov

EGLE Site ID No. 82002970 CD Number 2:1712372-GAD-RSW

DATE April 30, 2025 **PROJECT NUMBER** 30251157.201.02

DEPARTMENT Environment NAME Kris Hinskey <u>Kristoffer.Hinskey@arcadis.com</u>

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this quarterly update letter to the interim preemptive mitigation (IPM) systems for the Livonia Transmission Plant (LTP) site (the Site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As discussed during the meeting with EGLE on October 22, 2020 and documented in the November 30, 2020 letter from EGLE, Ford is providing the IPM updates on a quarterly basis, with this quarterly update covering the first quarter including January through March 2025.

As of March 31, 2025, the status of the 33 residential properties in the Alden Village subdivision is as follows:

- 31 of 33 of the IPMs are installed and operating. The status of the remaining 2 are described below:
 - 12124 Boston Post: Between 2018 and 2020, four rounds of sub-slab and indoor air samples were collected from this residence with results below EGLE residential sub-slab volatilization to indoor air criteria. The property owner refused the installation of the mitigation system because no vapor impacts were detected inside or under the residence by the vapor samples collected. Ford and Arcadis will follow the process outlined in the Consent Decree to request an alternative monitoring plan in lieu of mitigation in a remedial action plan (RAP).
 - 12121 Boston Post: Arcadis continues to be denied access to this property.
- 10 of 10 sheds where Retro-Coat[™] has been proposed have had it applied to the floor.
- 10 of 10 garages have had Retro-Coat[™] applied to the floor.

Ford has established an Electrical Reimbursement Program to reimburse residents for the electrical costs associated with the operation of IPM systems. The Electrical Reimbursement Program is administrated by Arcadis on behalf of Ford. Electrical reimbursements will continue to be processed and distributed on a quarterly basis.

As described in the EGLE letter dated February 1, 2019, EGLE required for the entirety of the residential structure floor to be depressurized to a minimum of -0.02 inches of water column (iwc) for the residential IPM systems. Due to various reasons such as competency of the slab and subgrade obstructions, -0.02 iwc could not be met for select homes. The issue was discussed with EGLE who ultimately recommended the installation of vacuum transmitters at these structures. The transmitters continuously monitor the presence of vacuum below the slab to

confirm that a negative differential pressure is being maintained although may not be meeting -0.02 iwc. The graphs of the continuously monitored differential pressure at these structures are depicted below. Arcadis continues to work diligently to maintain the IPM systems.

Details are provided below for all 33 locations.

Interim Preemptive Mitigation Systems Currently Operating

- **34380 Beacon** The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event. Arcadis will continue to contact the homeowner to schedule the annual OM&M event.
- 34424 Beacon The system is currently in operation and is being maintained and monitored. Arcadis
 previously observed cracking in the concrete slab of the unoccupied shed resulting in damage to the RetroCoat [™] which was outlined in the 2Q 2024 quarterly update letter. Ford and Arcadis continue to follow the
 guidance outlined in the Consent Decree and alterations to the mitigation system will be requested in the
 response activity plan.

The fifth annual OM&M event was completed on January 31, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.

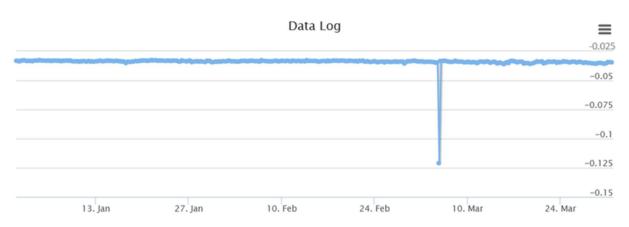
34450 Beacon – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 31, 2025. All accessible monitoring points achieved the performance metric established by EGLE of -0.02 iwc. Monitoring points SSMP-2 and SSMP-5 were not accessible due to a large pile of stored materials in the slab on grade sunroom.



Exhibit 1: Inaccessible monitoring points in an enclosed sunroom.

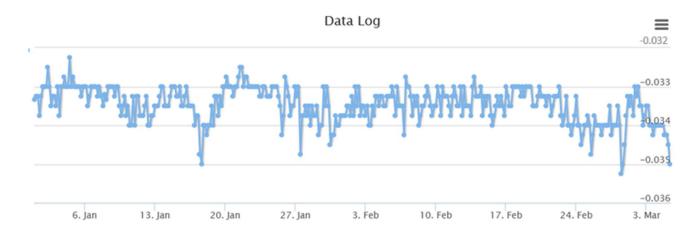
34550 Beacon – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 27, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.

• **34591 Beacon** – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event is scheduled for April 7, 2025, which will be summarized in the second quarter 2025 update.



An update of the data logged by the vacuum transmitter connected to SSMP-1 is presented below.

Below is a zoomed in portion of the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



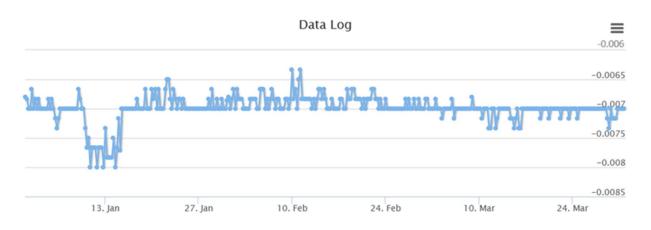
34600 Beacon – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 28, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc. During the OM&M event Arcadis noted small cracks in the Retro-Coat ® coating in the attached garage. Repairs to the Retro-Coat ® coating in the garage were made following the repair procedures outlined in the maintenance plan. Arcadis cleaned the cracks, then applied urethane caulk over the damaged Retro-Coat ®.



Exhibit 2:Crack repairs to the garage Retro-coat ®.

- **34644 Beacon –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 30, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **34682 Beacon** The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event. Arcadis will continue to contact the homeowner to schedule the annual OM&M event.

An update of the data logged by the continuously monitored vacuum transmitter connected to sub-membrane monitoring point MP-5 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



Monitoring in accordance with the EGLE-approved property-specific monitoring program is ongoing. The first quarter 2025 groundwater sampling results for vinyl chloride was estimated at 0.61 μ g/L at MW-115S and did not exceed the historical high of 3.9 μ g/L observed in November 2019. The vinyl chloride concentrations at MW-154S and MW-155S were non-detect and did not exceed the groundwater screening level of 1.0 μ g/L. Therefore, additional sub-slab sampling was not required.

- **34920 Beacon** The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event. Arcadis will continue to contact the homeowner to schedule the annual OM&M event.
- **34940 Beacon** The portion of the IPM system in the garage and vapor extraction connected to the sump is currently in operation and is being maintained and monitored. Updates to the IPM are also underway as detailed in the EGLE approval letter for Response Activity Plan-Revised Interim Response Activity Plan for 34940 Beacon Street dated January 3, 2025 that was prepared to address water under the basement foundation that adversely affected the RetroCoat ®.

Arcadis completed monthly indoor air sampling at the property as requested by EGLE via electronic correspondence dated November 25, 2024. Arcadis followed the methodologies and sampling procedures identified in the EGLE approved Response Activity Plan – Vapor Intrusion Evaluation dated April 13, 2018 and the Quality Assurance Project Plan dated August, 2017. In the 1Q2025, Arcadis completed the following:

- The January 24-hour indoor air samples were deployed on January 28, 2025, and collected on January 29, 2025.
- The February 24-hour indoor air samples were deployed on February 18, 2025, and collected on February 19, 2025.
- The March 24-hour air samples were deployed on March 11, 2025, and collected on March 12, 2025.

The analytical results for the air samples are summarized in **Table 1** below.

Constituent:			1,1-Dichloroethene	1,4-Dioxane	cis-1,2- Dichloroethene	Tetra-chloroethene	trans-1,2- Dichloroethene	Trichloroethene	Vinyl chloride
Unit:			μg/m³	μg/m³	µg/m³	μg/m³	μg/m³	μg/m³	µg/m³
Residential Indoor Air Recommended Interim Action Screening Levels (سg/m³):		210	5.1	8.3	41	270	2.0	1.6	
Sample Location	Sample Date	Sample Identification							
34940 Beacon	1/29/2025	IAF-34940BEACON-01_012925	<0.29 [<0.29]	<2.7 [<2.6]	<0.59 [<0.57]	0.13 J [0.092 J]	<2.9 [<2.9]	<0.80 [<0.78]	<0.19 [<0.18]
34940 Beacon	1/29/2025	IAB-34940BEACON-02_012925	<0.11	<0.98	<0.22	0.097 J	<1.1	<0.29	<0.070
34940 Beacon	2/19/2025	IAF-34940BEACON-01_021925	<0.056	<0.50	<0.11	0.041 J	0.022 J	<0.15	< 0.036
34940 Beacon	2/19/2025	AA-34940BEACON-01_021925	<0.051	<0.46	<0.10	0.046 J	0.046 J	<0.14	<0.033
34940 Beacon	2/19/2025	IAB-34940BEACON-02_021925	<0.057 [<0.057]	<0.52 [<0.52]	<0.11 [<0.11]	0.040 J [0.043 J]	0.022 J [0.030 J]	<0.15 [<0.15]	<0.036 [<0.036]
34940 Beacon	3/12/2025	AA-34940BEACON-01_031225	<0.056	<0.51	<0.11	0.047 J	0.032 J	<0.15	<0.036
34940 Beacon	3/12/2025	IAF-34940BEACON-01_031225	<0.056	<0.51	<0.11	0.071 J	0.039 J	<0.15	<0.036
34940 Beacon	3/12/2025	IAB-34940BEACON-02_031225	<0.056 [<0.054]	<0.51 [<0.49]	<0.11 [<0.11]	0.083 J [0.060 J]	0.033 J [0.033 J]	<0.15 [<0.15]	<0.036 [<0.035]

Table 1 – 34940 Beacon First Quarter Indoor and Ambient Air Analytical Results:

"J" - Estimated Value.

< Denotes not detected above reporting limit or method detection limit

[<0.49] - Indicates the duplicate sample value.

IAB - indoor air basement

IAF – indoor air first floor

AA – ambient air exterior

µg/m3 – micrograms per cubic meter

On March 17, 2025, the foundation contractor began construction of the replacement perimeter drainage system in the basement. A narrow portion of the concrete floor was broken up and removed allowing for access to the existing perimeter drainage system for removal and replacement. The foundation contractor installed replacement stone, perimeter drainage pipe, a sump basin, and cleanout access ports.

On March 19th, 2025, a new sump pump and in-line carbon filtration system were installed.

Upon startup of the new sump pump, sediment was observed in the water which immediately clogged the carbon treatment system and prevented dewatering of the groundwater in the perimeter drainage system. Without active dewatering, the newly dug drainage trench accumulated several inches of standing water and the replacement concrete could not be poured. During subsequent conversations with EGLE on March 20, 2025 and email notification dated March 25, 2025, EGLE approved discharge of this accumulated water to the sanitary without carbon treatment so dewatering would not be further delayed. Discharge to the sanitary sewer as it had already been configured was previously approved by the Great Lakes Water Authority on January 17, 2025 via email correspondence. Following the completion of the City of Livonia Building inspection, replacement concrete was poured on March 25, 2025.

At the request of EGLE, weekly sump samples were to be collected while new carbon filtration was procured and the water turbidity was given time to reduce. Two samples were collected during 1Q2025 dated March 21, 2025 and March 25, 2025 and submitted for analysis of the seven site COCs. The sump water samples were below site-specific volatilization to indoor air criteria for the seven site specific constituents except for cis-1, 2-Dichloroethene which was $4.2 \mu g/L$ during the first sampling event on March 21, 2025. However, subsequent sampling events have remained below site specific volatilization to indoor air criteria. The sump was under vacuum as part of the IPM operation following the sump pump alterations completed on March 19, 2025. The analytical results for the sump water samples are summarized in **Table 2**.

Location:		EGLE Residential	SUMP_34940BEACON 3/21/2025	SUMP_34940BEACON 3/25/2025			
Date:	Unit	SSVIAC	5/21/2025	5/25/2025			
Volatile Organic Compounds (VOCs via Method 8260 or 8265)							
1,1- Dichloroethene	µg/L	18	ND (<0.49)	ND (<0.49)			
1,4-Dioxane	µg/L	1,900	ND (<0.86)	ND (<0.86)			
cis-1,2- Dichloroethene	µg/L	3.4	4.2	0.94 J			
Tetrachloroethene	µg/L	1.5	ND (<0.44)	ND (<0.44)			
trans-1,2- Dichloroethene	µg/L	13	0.51 J	ND (<0.51)			
Trichloroethene	µg/L	1.0	ND (<0.44)	ND (<0.44)			
Vinyl chloride	µg/L	1.0	1.0	ND (<0.45)			

Table 2 – 34940 Beacon First Quarter Sump Water Analytical Results:

BOLD - Result exceeds SSVIAC

"J" - Estimated Value.

"SSVIAC" - Site-Specific Volatilization to Indoor Air Criteria

"ND (<0.49)" - Indicated the value is below the laboratory method detection limit for the associated sampling event.

"SUMP" - Basement Sump Water

The remaining revised interim activities for this property are to be completed at the schedule outlined below:

- April 23-29, 2025: Removal of the existing Retro-Coat ® coating.
- May 5, 2025: Reapplication of Primer MV-1 and Retro-Coat ® coating.
- May 12, 2025: Installation of the in-line carbon filtration system.
- June 12, 2025: Submittal of Interim Response Activity report including photos and detailed "as-built" diagrams. the completion of the City of Livonia inspection, replacement concrete was poured on March 25, 2025.

Exhibit 3: Construction Photos



Photo 1 (left): Installation in progress of the replacement perimeter drainage system in the basement.

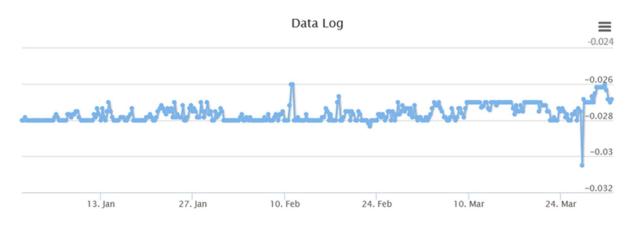
Photo 2 (right): Installation of the replacement perimeter drainage system in the basement.



Photo 3 (left): Installation of plastic sealing the opening in the concrete floor until the replacement concrete was poured.

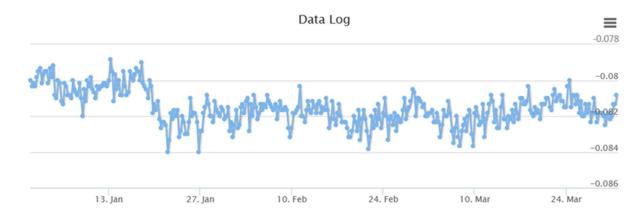
Photo 4 (right): Completed installation of the replacement perimeter drainage system and the poured concrete floor in the basement.

- **34950 Beacon** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 24, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **34990 Beacon** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 27, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc except for MP-7 which is monitored by a vacuum transmitter. An update of the data logged by the vacuum transmitter connected to MP-7 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



- 12066 Boston Post The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 30, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12067 Boston Post –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 11, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.

An update of the data logged by the vacuum transmitter connected to MP-1 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



- 12070 Boston Post The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 27, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12089 Boston Post –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 29, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12100 Boston Post –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 26, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.

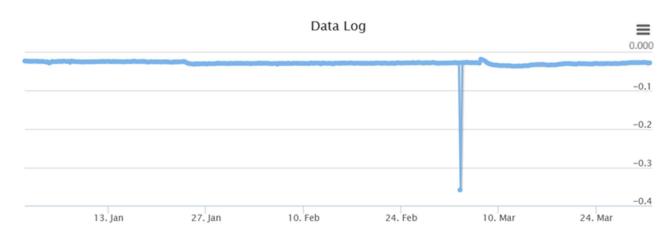
An update of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



Monitoring in accordance with the EGLE-approved property-specific monitoring program is underway. The first quarter 2025 groundwater sampling result for vinyl chloride was estimated at 0.61 μ g/L at MW-115S and did not exceed the historical high of 3.9 μ g/L observed in November 2019. The vinyl chloride concentration was estimated at 0.76 μ g/L at MW-79SR which did not exceed the historical high of 1.5 μ g/L observed in November 2023. The vinyl chloride concentration was non-detect at MW-156S and did not exceed the groundwater screening level of 1.0 μ g/L.

 12131 Boston Post – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 7, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc except for monitoring point MP-4 which is monitored by the vacuum transmitter.

The update of the data logged by the vacuum transmitter connected to MP-4 is presented below.

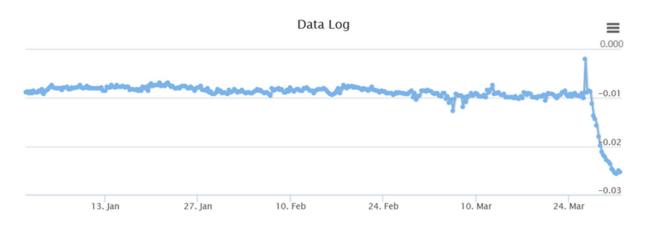


Below is a zoomed in portion of the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



• **12141 Boston Post** – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 26, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc except for monitoring point MP-4 which is monitored by a vacuum transmitter.

An update of the data logged by the vacuum transmitter connected to MP-4 is presented below.



Below is a zoomed in portion of the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



- **12017 Brewster –** The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event and has asked to have the OM&M event scheduled in May. Arcadis will continue to contact the homeowner to schedule the annual OM&M event
- **12036 Brewster –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 23, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc except for monitoring points SSMP-1 and SSMP-2. Arcadis was unable to clear the vapor pin at monitoring point SSMP-1 and it was suspected the vapor pin was plugged by frozen sub-slab material due to the extreme cold temperatures. Monitoring point SSMP-2 is monitored by a vacuum transmitter.

On March 28, 2025, Arcadis completed a follow up visit to collect monitoring point readings. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc except for monitoring point SSMP-2 which is monitored by a vacuum transmitter.

An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



- 12075 Brewster The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 30, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12088 Brewster** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 6, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12091 Brewster –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 30, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **12101 Brewster** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 29, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **34367 Capitol Avenue –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 28, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- **34380 Capitol Avenue –** The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 24, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- 34401 Capitol Avenue The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on January 23, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc. During the OM&M event Arcadis noted small cracks in the Retro-Coat ® coating in the attached garage. Repairs to the Retro-Coat ® coating in the garage were made following the repair procedures outlined in the maintenance plan. Arcadis cleaned the cracks, then applied urethane caulk over the damaged Retro-Coat ®.



Exhibit 5: Four photographs show the small cracks and repairs to the garage Retro-coat ®.

• **34424 Capitol Avenue –** The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event. Arcadis will continue to contact the homeowner to schedule the annual OM&M event.

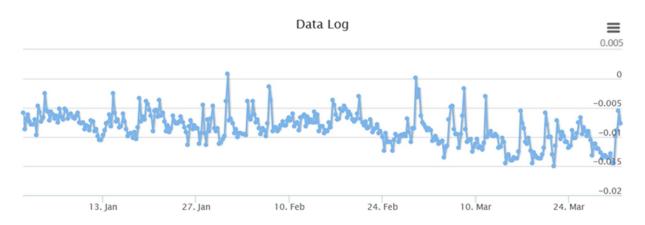
Monitoring in accordance with the EGLE-approved property-specific monitoring program is ongoing. The first quarter 2025 groundwater sampling results for vinyl chloride were non-detect at MW-90S, MW-103S, and MW-169S and did not exceed the groundwater screening level of 1.0 μ g/L. The vinyl chloride concentration was non-detect at MW-136S and did not exceed the historical high of 3.2 μ g/L observed in November 2020. The vinyl chloride concentration was estimated at 0.50 μ g/L at MW-148S but did not exceed the historical high of 2.3 μ g/L observed in November 2020.

 34450 Capitol Avenue – The system is currently in operation and is being maintained and monitored. The fifth annual OM&M event was completed on March 28, 2025. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.

Monitoring in accordance with the EGLE-approved property-specific monitoring program is underway. First quarter 2025 groundwater sampling results for vinyl chloride were non-detect at MW-108S, MW-168S, and MW-169S and did not exceed the groundwater screening level of 1.0 μ g/L. The vinyl chloride concentration was non-detect at MW-137S and did not exceed the historical high of 1.2 μ g/L observed in August 2022. Therefore, additional sub-slab sampling was not required.

• **34480 Capitol Avenue** – The system is currently in operation and is being maintained and monitored. The homeowner has not been available to conduct the monitoring event. The fifth annual OM&M event is scheduled for April 25, 2025, which will be summarized in the second quarter 2025 update.

An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below. Below is the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



Interim Preemptive Mitigation Systems Not Installed

- 12124 Boston Post Four rounds of pre-mitigation indoor air and sub-slab data were completed between 2018 and 2020. No detections of vinyl chloride were reported in any of the samples. Additionally, all groundwater samples collected to date from the closest upgradient monitoring well (MW-118S) have been below the groundwater screening level of 1.0 µg/L, including the first quarter 2025 sample which was estimated at 0.46 ug/L.
- **12121 Boston Post** Under the supervision of EGLE, Ford is continuing to monitor groundwater proximate to the home to accommodate the homeowner's refusal to grant access to their property for other investigation, characterization, or mitigation activities.